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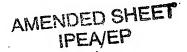
## ART 34 AMDT

## SUBSTITUTE CLAIMS

- 1. A film comprising a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about 30 wt% to about 99.5 wt% ethylene, wherein:
- (1) the fluorine-containing comonomers are fluorinated acrylate or methacrylate esters of the general formula: Cf-L-O-CO-CR=CH<sub>2</sub>, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;
- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide, carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and

(iii) R is H or CH3.

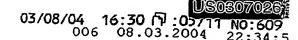
- 2. A fiber comprising a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about 30 wt% to about 99.5 wt% ethylene, wherein:
- (1) the fluorine-containing comonomers are fluorinated acrylate or methacrylate esters of the general formula: Cf-L-O-CO-CR=CH<sub>2</sub>, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;











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- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide, carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and
- (iii) R is H or CH3; and wherein the fiber is obtained by a melt-blowing process.
- 3. An article having a composite or multilayer structure comprising an outer layer comprising: a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about 30 wt% to about 99.5 wt% ethylene, wherein:
- (1) the fluorine-containing comonomers are fluorinated acrylate or methacrylate esters of the general formula: Cf-L-O-CO-CR=CH<sub>2</sub>, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;
- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide, carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and
  - (iii) R is H or CH3.
- 4. A microporous membrane comprising a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC







Printed: 21-06-2004



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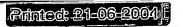
comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about 30 wt% to about 99.5 wt% ethylene, wherein:

- (1) the fluorine-containing comonomers are fluorinated acrylate or methacrylate esters of the general formula: Cf-L-O-CO-CR=CH<sub>2</sub>, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;
- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide, carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and
- (iii) R is H or CH<sub>3</sub>; and wherein the membrane is useful as protection against permeation of liquids through the membrane.
- 5. A flash spun plexifilamentary product comprising a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about 30 wt% to about 99.5 wt% ethylene, wherein:
- (1) the fluorine-containing comonomers are fluorinated acrylate or methacrylate esters of the general formula: Cf-L-O-CO-CR=CH<sub>2</sub>, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;
- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide,

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carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and

(iii) R is H or CH3.

- 6. A melt spun fibrous article comprising a fluorine containing ethylene copolymer (FCEC) obtained by the copolymerization of ethylene with suitable fluorine-containing comonomer compounds, wherein the FCEC comprises from about 0.5 wt% to about 40 wt% of a fluorine-containing comonomer compound and from about Illustrated activated of members, wherein:
  - (i) Cf is a fluorinated aliphatic group having at least 4 carbon atoms;
- (ii) L is a linking group that connects the fluorinated aliphatic group with the (meth)acrylate group, selected from the group consisting of arylene, arylalkylene, sulfonyl, sulfoxy, sulfonamide, carboxyamino, carbonyloxy, urethanylene, and combinations thereof; and
- (iii) R is H or CH<sub>3</sub>; and wherein the fibrous products are obtained by melt spinning or multicomponent fiber spinning a FCEC or a blend thereof.



